

## **REMARKS**

### **Status of the Claims**

Claims 1-3 and 6-8 are currently pending in the present application. Claims 4-5 are withdrawn as directed to a non-elected invention. Claims 1-3 are currently amended. Support for the amendment to claim 1 is found throughout the application as originally filed including, *e.g.*, *see* page 6, lines 4-22, and Table 1. Claims 2-3 are amended for clarity. Claims 6-8 are new. Support for new claims 6-8 is found, *e.g.*, on page 6, lines 4-22, and page 5, lines 3-5 and lines 20-22. No new matter has been added by way of this amendment. Reconsideration is respectfully requested.

### **Priority**

The Examiner acknowledges Applicants' claim for foreign priority based upon an application filed in Japan, *i.e.*, Japanese Application No. 2004-056511. Initially, Applicants note that the filing date of the Japanese Application is March 1, 2004, not March 3, 2004, as stated in the Office Action *see* Declaration submitted on August 15, 2006, which states that the priority date of Japanese Application No. 2004-056511 is March 1, 2004. Further, the incorrect priority date is specified under the foreign priority tab on the Patent Application Information Retrieval system, (PAIR). Applicants respectfully request that the Examiner acknowledge and correct the priority date in the image file wrapper.

Notwithstanding the foregoing, the Examiner states that a certified copy of Japanese Application No. 2004-056511 was not received by the USPTO. Applicants note that the instant application is a national stage application of PCT Application No. PCT/JP2005/003801. The International Bureau acknowledged receipt of the priority document on April 14, 2005, *see* the PAIR tag of August 15, 2006, labeled "Certified Copy of Foreign Priority Application." However, the International Bureau did not forward the priority document to the USPTO. Accordingly, submitted herewith is PTO form SB/38 requesting that the USPTO retrieve a certified copy of the priority document from the Japanese Patent Office, where the priority document was originally filed.

**Issue Under 35 U.S.C. § 112, Second Paragraph**

Claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. Specifically, the Examiner asserts that claims 1-3 are method claims, which lack positive steps. As amended, claim 1 specifies positive steps, *i.e.*, contacting a solution comprising a sample biopolymer with only a glass slide, wherein a probe biopolymer is immobilized to the glass slide; placing the glass slide into a vessel comprising a solution having the same vapor pressure as the solution comprising the sample biopolymer, wherein the vessel solution is not in contact with the solution comprising the sample biopolymer; closing the vessel; hybridizing the sample biopolymer and the probe biopolymer.

In view of the foregoing, Applicants believe the rejection is overcome. Accordingly, withdrawal of the rejection is respectfully requested.

**Issues Under 35 U.S.C. § 102 (b)**

*Clonotech*

Claim 1 is rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Clonotech, GlassHyb® Hybridization Solution User Manual, January 9, 2001, ("Clonotech"), *see Office Action*, pages 3-4. Specifically, the Examiner states that Clonotech describes a hybridization method that comprises inserting a glass microarray into a hybridization chamber and adding a hybridization solution, which contains a sample biopolymer in solution. Accordingly, the Examiner alleges that Clonotech describes all of the elements of claim 1. Applicants respectfully traverse.

Applicants do not agree that Clonotech anticipates the instant claims. Nevertheless, in an effort to expedite prosecution, the claims are amended. As amended, the claimed hybridization method describes a closed vessel that stores a solution, *i.e.*, a humectant, *see* page 6, lines 4-22, in the originally filed application. The vessel solution or humectant has the same vapor pressure, *i.e.*, the same solute molar concentration, as the solution containing the sample biopolymer. The sample biopolymer solution is contacted with a glass slide, which is contained within the closed vessel. The solution containing the sample biopolymer is not in contact with the humectant.

Applicants note that this method prevents significant evaporation of the solution containing the sample biopolymer, *see* Table 1 in the originally filed application.

Specifically, claim 1 as amended, is directed to a hybridization method comprising contacting a solution comprising a sample biopolymer with only a glass slide, wherein a probe biopolymer is immobilized to the glass slide, placing the glass slide into a vessel comprising a solution having the same vapor pressure as the solution comprising the sample biopolymer, wherein the vessel solution is not in contact with the solution comprising the sample biopolymer; closing the vessel, hybridizing the sample biopolymer and the probe biopolymer.

In contrast, the Clonotech manual, at least, does not describe a humectant and a solution containing a sample biopolymer, wherein the humectant and sample biopolymer solution have the same vapor pressure and are not in contact with each other. That is, in the Clonotech method, only one solution is described, *i.e.*, a hybridization solution, which is added to the hybridization chamber. Accordingly, Clonotech fails to disclose a “a vessel comprising a solution having the same vapor pressure as the solution comprising the sample biopolymer, wherein the vessel solution is not in contact with the solution comprising the sample biopolymer”, as specified in the instant claims.

Based upon the foregoing, the claims are not anticipated by Clonotech. Withdrawal of the rejection is respectfully requested.

*Schembri*

Claim 1 is further rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Publication No. 2001/0046702 to Schembri, (“Schembri”), *see* Office Action, page 4. Applicants respectfully traverse.

According to the Examiner, Schembri describes a hybridization chamber for hybridizing an array. The Examiner states that Schembri teaches adding a hybridization buffer to a sample array and then closing the hybridization chamber. According to the Examiner, the solute concentration throughout the hybridization chamber is uniform since only hybridization buffer is added.

Although Applicants do not agree that the claims are anticipated by Schembri, claim 1 is amended as described above in an effort to expedite prosecution.

In contrast to amended claim 1, Schembri does not describe two solutions, *i.e.* a vessel comprising a solution, and a solution containing the sample biopolymer, wherein the solutions are not in contact and which have the same vapor pressure. Accordingly, Schembri fail to teach all of the elements of claims 1.

Based upon the foregoing, claim 1 is not anticipated by Schembri. Withdrawal of the rejection is respectfully requested.

**Issues Under 35 U.S.C. § 103 (a)**

*Clonotech and Sato*

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as allegedly obvious in view of Clonotech and U.S. Publication No. 2002/0127589 to Sato *et al.*, ("Sato"), *see Office Action*, pages 4-6. Applicants respectfully traverse.

The Examiner alleges that Clonotech teaches all of the elements of the claims, but fails to describe a glass slide comprising hydrophilic and hydrophobic regions. However, the Examiner alleges that Sato describes these elements. Accordingly, the Examiner asserts that the combination of references teaches all of the elements of the instant claims.

As noted above, Clonotech fails to describe all the elements of amended claim 1. Specifically, Clonotech fails to describe a vessel comprising a solution having the same vapor pressure as the solution comprising the sample biopolymer, wherein the vessel solution is not in contact with the solution comprising the sample biopolymer. Sato fails to remedy the deficiencies of Clonotech and is merely cited for describing a glass slide comprising a hydrophilic region having immobilized biopolymers and a hydrophobic region, which does not have immobilized biopolymers. Thus, the combination of Clonotech and Sato fails to teach or suggest all of the elements of amended claim 1. Accordingly, claim 1 is not obvious in view of Clonotech and Sato.

Dependent claims 2-3 and 6-8 are also not obvious over the cited references since these claims incorporate all of the elements of independent claim 1. In view of the foregoing, withdrawal of the rejection is respectfully requested.

*Schembri and Sato*

Claims 1-3 are also rejected under 35 U.S.C. § 103(a) as allegedly obvious in view of Schembri and Sato, *see Office Action*, pages 6-8. Specifically, the Examiner states that Schembri teaches a hybridization chamber for hybridizing at least one array, wherein the array can be a glass microscope slide. The Examiner further states that Schembri's chamber forms a vapor tight seal. Schembri further teaches a method of hybridizing sample to an array comprising inserting the array into the chamber, adding the sample to be hybridized and closing the chamber. In addition, the Examiner states that Schembri teaches that the use of an evaporation inhibiting liquid may create an uneven distribution and cause evaporation of portions of the array. The Examiner acknowledges that Schembri does not teach a glass slide comprising a hydrophilic and hydrophobic region. However, the Examiner states that Sato remedies this deficiency. Applicants respectfully traverse.

As noted above, Schembri does not teach all of the elements of claim 1. In particular, Schembri fails to describe "a vessel comprising a solution having the same vapor pressure as the solution comprising the sample biopolymer, wherein the vessel solution is not in contact with the solution comprising the sample biopolymer."

Sato fails to remedy the deficiencies of Schembri and is merely cited for describing a glass slide comprising a hydrophilic region having immobilized biopolymers and a hydrophobic region, which does not have immobilized biopolymers. Accordingly, the combination of Schembri and Sato fails to teach or suggest all of the elements of amended claim 1. Accordingly, claim 1 is not obvious in view of Schembri and Sato.

Moreover, Schembri teaches away from the instant invention. That is, the Examiner acknowledges that Schembri teaches that evaporation inhibiting liquids may create an uneven distribution and cause evaporation of portions of an array, *see Office Action*, page 7 and paragraph [0008] of Schembri. Accordingly, Schembri would have discouraged an ordinary artisan from using a humectant, in addition to a solution containing a sample biopolymer, since Schembri teaches that such solutions are ineffective.

Based upon the foregoing, claim 1 is not obvious in view of Schembri and Sato. Dependent claims 2-3 and 6-8 incorporate all of the elements of independent claim 1.

Accordingly, dependent claims 2-3 and 6-8 are also not obvious over the cited references. In view of the above, withdrawal of the rejection is respectfully requested.

**CONCLUSION**

In view of the above amendment and remarks, Applicants believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Linda T. Parker, Reg. No. 46,046, at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: OCT 22 2009

Respectfully submitted,

By 

Marc S. Weiner  
Registration No.: 32,181  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant